SANTA CRUZ BIOTECHNOLOGY, INC.

cadherin-18 siRNA (m): sc-141971

BACKGROUND

The cadherins are a family of Ca^{2+}-dependent adhesion molecules that function to mediate cell-cell binding events that are critical to the maintenance of cell structure and morphogenesis. EY-cadherin, also known as CDH18 (cadherin 18), CDH14 (cadherin 14), CDH24 or CDH14L, is a 790 amino acid single-pass type I membrane protein that contains five cadherin domains. One of several members of the cadherin superfamily, EY-cadherin functions as a type II classical cadherin that is expressed specifically in the central nervous system (CNS), where it plays a role in cell-cell binding events. Specifically, EY-cadherin is thought to be involved in axon guidance and outgrowth, as well as synaptic adhesion within the CNS. EY-cadherin contains a highly conserved C-terminal domain characteristic of all cadherins, but lacks the HAV cell adhesion sequence that is specific to type I cadherins. The gene encoding EY-cadherin is located within a region on chromosome five that is commonly deleted in carcinomas, implicating EY-cadherin as a potential tumor suppressor.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Cdh18 (mouse) mapping to 15 A2.

PRODUCT

cadherin-18 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see cadherin-18 shRNA Plasmid (m): sc-141971-SH and cadherin-18 shRNA (m) Lentiviral Particles: sc-141971-V as alternate gene silencing products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

cadherin-18 siRNA (m) is recommended for the inhibition of cadherin-18 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor cadherin-18 gene expression knockdown using RT-PCR Primer: cadherin-18 (m)-PR: sc-141971-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.